

140 FERC ¶ 62,169
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Whitman River Dam, Inc.

Project No. 13237-003

ORDER ISSUING ORIGINAL MINOR LICENSE

(September 5, 2012)

INTRODUCTION

1. On August 29, 2011, Whitman River Dam, Inc. (Whitman) filed, pursuant to Part I of the Federal Power Act (FPA),¹ an application for an original license to construct, operate, and maintain its proposed Crocker Dam Hydroelectric Project No. 13237 (Crocker Dam Project or project).² The 145-kilowatt (kW) project will be located at the existing Crocker Pond dam, on the Whitman River, near the town of Westminster, in Worcester County, Massachusetts.³ The project will not occupy any federal lands.

¹ 16 U.S.C. §§ 791(a) – 825(r) (2006).

² Whitman filed an application for a small hydropower project exemption from licensing on February 14, 2011. Because Whitman does not have adequate property rights for the project site, the project does not qualify for a small hydropower exemption; therefore, Whitman revised its application and filed for a minor license.

³ The Crocker Dam Project will be located on the Whitman River, a tributary to the Nashua River. Nashua River is a tributary to the Merrimack River which is a navigable waterway of the United States. *See Ice House Partners, Inc.*, 114 FERC ¶ 62,238 (2006). Headwaters and tributaries of navigable rivers are Commerce Clause streams within the meaning of FPA section 23(b)(1). *See F.P.C. v. Union Electric Co.*, 381 U.S. 90, 94-96 (1965). Because the project is located on a tributary over which Congress has jurisdiction under the Commerce Clause, affects interstate commerce through its connection to an interstate power grid, and will be constructed after 1935, it is required to be licensed pursuant to section 23(b)(1) of the FPA. *See* 16 U.S.C. § 817(1) (2006).

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2. As discussed below, this order issues an original license for the Crocker Dam Project.

BACKGROUND

3. On September 12, 2011, the Commission issued a public notice that was published in the *Federal Register* accepting the application for filing; soliciting motions to intervene and protests; indicating the application was ready for environmental analysis; indicating the Commission intended to waive solicitation of additional study requests and scoping; soliciting comments, recommendations, terms and conditions, and prescriptions; and establishing an expedited schedule for processing.⁴ The notice set November 14, 2011, as the deadline for filing motions to intervene, protests, comments, final recommendations, terms and conditions, and prescriptions. No motions to intervene or protests were filed. The U.S. Department of the Interior (Interior) filed a letter indicating it had no recommendations under section 10(j). The Massachusetts Department of Fisheries and Wildlife (Massachusetts DFW) filed terms and conditions pursuant to 18 C.F.R. § 4.106(b).⁵ Whitman filed reply comments on December 12, 2011.

4. An Environmental Assessment (EA) was prepared by Commission staff and issued on July 2, 2012, analyzing the impacts of the proposed project. On July 27, 2012, Whitman filed comments on the EA.⁶

5. All comments and recommendations have been fully considered in determining whether, and under what conditions, to issue this license.

⁴ 76 *Fed. Reg.* 57724-25 (2011).

⁵ Conditions pursuant to 18 C.F.R. § 4.106(b) apply to small hydroelectric power project exemptions from licensing. However, the notice issued on September 12, 2012, solicited comments, terms, and conditions on an application for license; therefore, 18 C.F.R. 4.106(b) does not apply. Massachusetts DFW's conditions are addressed below as recommendations under section 10(j) of the FPA.

⁶ Whitman made no substantive comments other than indicating it has provided a plan with erosion control measures to the Massachusetts DFW and the Massachusetts Department of Environmental Protection.

PROJECT DESCRIPTION

6. The proposed project would consist of: the existing 520-foot-long, 38.5-foot-high earthen embankment and masonry Crocker Pond dam with a 120-foot-long arched spillway section currently topped with 26-inch-high wooden flashboards; an existing 102.9-acre impoundment with a normal water surface elevation of 752.66 feet above mean sea level (msl); an existing 8-foot-wide, 12-foot-high floodgate; an existing 3-foot-wide, 3-foot-high mud gate; an existing gate house equipped with an existing 47-foot-long, 42-inch-diameter penstock and a new 18-foot-wide, 6.5-foot-high metal trashrack with 1-inch-wide bar spacing; a new 6-foot-long, 42-inch-diameter penstock extension; a new powerhouse containing one 145-kW turbine generating unit; a new 20-foot-wide, 6-foot-deep, 35-foot-long tailrace; a new 240-foot-long, 480-volt (V) transmission line; and appurtenant facilities.

7. The proposed project boundary encloses the dam, impoundment, gates and gate house, penstock, powerhouse, tailrace, and a portion of the transmission line. The project has no existing or proposed recreational facilities. The project boundary is discussed further below.

8. Whitman proposes to operate the project in a run-of-river mode using flows from 13 cubic feet per second (cfs) (the minimum hydraulic capacity of the turbine) to 60 cfs (the maximum hydraulic capacity of the turbine). Flows less than 13 cfs or greater than 60 cfs will be released over the dam. The project will create an 80-foot-long bypassed reach between the existing dam and the new tailrace. The bypassed reach will remain wetted at all times due to leakage through the flashboards and releases over the dam that are required in this license.

9. To maintain run-of-river operation and ensure that the project does not cause impoundment elevation fluctuations, the project will include an electronic control system that operates the turbine based on the impoundment elevation. The proposed project will have an estimated annual generation of 887.45 MWh.

10. Whitman also proposes to use a coffer dam and best management practices to control soil erosion and sedimentation during construction of the new powerhouse, tailrace, and transmission line and install a new 18-foot-wide, 6.5-foot-high metal trashrack with 1-inch-wide bar spacing at the penstock intake to protect resident fish from being entrained by the project and passing through the new turbine.

SUMMARY OF LICENSE REQUIREMENTS

11. As summarized below, this license, which authorizes 145 kW of renewable energy, requires a number of measures to protect and enhance environmental resources at

the project. These measures include: run-of-river operation with operation compliance monitoring; water quality monitoring; erosion and sediment control; minimum flows during impoundment refilling; a trashrack to avoid fish entrainment; and consultation if previously unidentified archaeological or historic properties are discovered during the course of constructing, operating, or maintaining project works.

WATER QUALITY CERTIFICATION

12. Under section 401(a)(1) of the Clean Water Act (CWA),⁷ the Commission may not issue a license authorizing the construction or operation of a hydroelectric project unless the state water quality certifying agency either has issued water quality certification for the project or has waived certification by failing to act on a request for certification within a reasonable period of time, not to exceed one year. Section 401(d) of the CWA provides that the certification shall become a condition of any federal license that authorizes construction or operation of the project.⁸

13. Whitman applied to the Massachusetts Department of Environmental Protection (Massachusetts DEP) for water quality certification (certification) on August 2, 2010. On February 4, 2011, Massachusetts DEP issued its certification for the Crocker Dam Project. The certification contains 25 conditions. Fourteen of the certification conditions (1-8, 11, 12, 14, 15, 24 and 25) are general or administrative and, as such, are not discussed further.

14. Condition 9 requires the licensee to submit a plan to monitor and control erosion to keep impacted waters free from turbidity. Condition 10 requires the licensee to dispose of debris and remove sediments in a manner that will not impair water quality. Condition 13 requires the licensee to operate the project in a run-of-river mode. Condition 16 requires the licensee to release 90 percent of project inflow to the impoundment when refilling the impoundment after drawdowns for maintenance or emergencies. Condition 17 requires the licensee to submit a plan to monitor run-of-river operation. Condition 18 requires the licensee to submit a plan to monitor dissolved oxygen and water temperature. Condition 19 requires the licensee to install a trashrack with an approach velocity of 2 feet per second (fps), clear bar-spacing of 1 inch or less, and full-depth coverage of the intake to reduce fish entrainment and impingement. Conditions 20 and 21 reserve Massachusetts DEP's right to prescribe fish and eel passage facilities. Condition 22

⁷ 33 U.S.C. § 1341(a)(1) (2006).

⁸ 33 U.S.C. § 1341(d) (2006).

requires the licensee to maintain a minimum flow in the bypassed reach sufficient to maintain water quality standards.⁹ Condition 23 requires the licensee to allow Massachusetts DEP and Massachusetts DFW access to the project to ensure compliance with the certification conditions. The certification is set forth in Appendix A of this order and incorporated into the license by ordering paragraph (E). Article 401 requires the licensee to file, for Commission approval, certain plans required by the certification conditions, notify the Commission of emergencies and other activities, and file amendment applications, as appropriate.

COASTAL ZONE MANAGEMENT ACT

15. Under section 307(c)(3)(A) of the Coastal Zone Management Act (CZMA),¹⁰ the Commission cannot issue a license for a project within or affecting a state's coastal zone unless the state CZMA agency concurs with the license applicant's certification of consistency with the state's CZMA program, or the agency's concurrence is conclusively presumed by its failure to act within 6 months of its receipt of the applicant's certification.

16. Because the Crocker Dam Project is located outside Massachusetts' coastal zone and it is not likely to affect coastal resources, the Massachusetts Office of Coastal Zone Management found that a consistency certification is not required.¹¹

SECTION 18 FISHWAY PRESCRIPTION

17. Section 18 of the FPA¹² provides that the Commission shall require the construction, maintenance, and operation by a licensee of such fishways as may be prescribed by the Secretary of the Interior or the Secretary of Commerce, as appropriate.

⁹ Designated coldwater fisheries such as the Whitman River have a minimum dissolved oxygen state standard of 6 milligram per liter and a maximum water temperature standard of 68 degrees Fahrenheit. EA at 17.

¹⁰ 16 U.S.C. § 1456(c)(3)(A) (2006).

¹¹ See record of communication with Bob Bowlery, Massachusetts Office of Coastal Zone Management filed August 16, 2012.

¹² 16 U.S.C. § 811 (2006).

18. No fishway prescriptions or reservations of authority were filed under section 18 of the FPA.

THREATENED AND ENDANGERED SPECIES

19. Section 7(a)(2) of the Endangered Species Act of 1973¹³ requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of federally listed threatened and endangered species, or result in the destruction or adverse modification of their designated critical habitat.

20. In a letter filed April 17, 2012, the U.S. Fish and Wildlife Service (FWS) indicated that there are no known federally listed threatened or endangered species or critical habitat for such species within the project area. No further action under the Endangered Species Act is required.

NATIONAL HISTORIC PRESERVATION ACT

21. Under section 106 of the National Historic Preservation Act (NHPA)¹⁴ and its implementing regulations,¹⁵ federal agencies must take into account the effect of any proposed undertaking on properties listed or eligible for listing in the National Register (defined as historic properties) and afford the Advisory Council on Historic Preservation (Advisory Council) a reasonable opportunity to comment on the undertaking. This generally requires the Commission to consult with the State Historic Preservation Officer (SHPO) to determine whether and how a proposed action may affect historic properties, and to seek ways to avoid or minimize any adverse effects.

22. In a letter filed on September 29, 2009, the Massachusetts SHPO stated that the proposed project is unlikely to affect any significant historic properties and made a determination of “no historic properties affected.” In the EA,¹⁶ staff determined that the proposed action would not affect historic properties.

¹³ 16 U.S.C. § 1536(a) (2006).

¹⁴ 16 U.S.C. § 470 *et seq.* (2006).

¹⁵ 36 C.F.R. Part 800 (2012).

¹⁶ EA at 27.

23. Article 403 requires Whitman to stop work and consult with the Massachusetts SHPO if previously unidentified cultural resources are discovered during initial project construction or operation.

24. Article 404 requires Whitman to consult with the Massachusetts SHPO prior to conducting any maintenance activities, land-clearing or land-disturbing activities, or changes to project operation or facilities that may occur during the term of this license that are not authorized by this license but could affect cultural resources.

RECOMMENDATIONS OF STATE AND FEDERAL FISH AND WILDLIFE AGENCIES PURSUANT TO SECTION 10(j) OF THE FPA

25. Section 10(j)(1) of the FPA¹⁷ requires the Commission, when issuing a license, to include conditions based on recommendations by federal and state fish and wildlife agencies submitted pursuant to the Fish and Wildlife Coordination Act,¹⁸ to "adequately and equitably protect, mitigate damages to, and enhance fish and wildlife (including related spawning grounds and habitat)" affected by the project.

26. In response to the September 12, 2011 public notice that the project was ready for environmental analysis, Interior filed a letter on November 10, 2011, indicating they had no recommendations under section 10(j). Massachusetts DFW filed a letter on November 14, 2011, that included ten conditions filed pursuant to 18 C.F.R. § 4.106(b) (i.e., mandatory conditions for inclusion in any exemption from licensing issued by the Commission). However, because 18 C.F.R. § 4.106(b) applies to exemptions, not licenses, Massachusetts DFW's conditions are considered recommendations under section 10(j).

27. Five of the recommendations filed by Massachusetts DFW are outside the scope of section 10(j) and are discussed in the next section. As discussed below, this license includes conditions consistent with each of the remaining five recommendations.

28. Massachusetts DFW recommended the project operate in a run-of-river mode. This measure is required by certification condition 13.

¹⁷ 16 U.S.C. § 803(j) (1) (2006).

¹⁸ 16 U.S.C. §§ 661 *et seq.* (2006).

29. Massachusetts DFW recommended installing a trashrack that has an approach velocity less than 2 fps, a clear spacing of 1 inch or less, and extends to the full depth of the intake opening. This measure is required by certification condition 19.
30. Massachusetts DFW recommended water quality monitoring. This measure is required by certification condition 18.
31. Massachusetts DFW recommended a plan for maintaining and monitoring run-of-river operation at the project. This measure is required by certification condition 17.
32. Massachusetts DFW recommended releasing 90 percent of inflow to the impoundment when refilling the impoundment after drawdowns for maintenance or emergencies. This measure is required by certification condition 16.

SECTION 10(a)(1) OF THE FPA

33. Section 10(a)(1) of the FPA¹⁹ requires that any project for which the Commission issues a license shall be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce; for the improvement and utilization of waterpower development; for the adequate protection, mitigation, and enhancement of fish and wildlife; and for other beneficial public uses, including irrigation, flood control, water supply, recreation, and other purposes.

A. Measures Recommended by Massachusetts DFW

34. Massachusetts DFW made five recommendations that are not specific measures to protect, mitigate damages to, or enhance fish and wildlife; therefore, these measures are not considered under section 10(j) of the FPA and instead are considered under the broad public-interest standard of section 10(a)(1).²⁰
35. Massachusetts DFW recommended that Whitman construct, operate, maintain, and evaluate upstream and downstream fish and eel passage facilities when notified by the agency that such facilities are needed. In the EA,²¹ Commission staff reported that there

¹⁹ 16 U.S.C. § 803(a)(1) (2006).

²⁰ 16 U.S.C. § 803(a)(1) (2006).

²¹ EA at 39.

are no American eels or anadromous fish in the vicinity of the project, and there is no information in the Commission's record to suggest that there are any ongoing fish passage programs in the Whitman River that will allow American eel or anadromous fish to access the project area during the term of any license. However, if migratory fish gain access to the project site in the future, certification conditions 20 and 21 reserve Massachusetts DEP's right to prescribe upstream and downstream passage facilities and operations for American eel and anadromous fish when Massachusetts DFW determines they are necessary.

36. Massachusetts DFW recommended that Whitman provide written notification when the project commences operation and provide as-built drawings to Massachusetts DFW and FWS. Notifying Massachusetts DFW and FWS of commencement of project operation and providing as-built drawings would provide the agencies with information on the status of project construction and operation, which seems reasonable. Article 304 requires the licensee to provide courtesy copies of as-built drawings to Massachusetts DFW and FWS, and Article 402 requires the licensee to notify Massachusetts DFW, FWS, and Massachusetts DEP of commencement of project operation.

37. Massachusetts DFW recommended that Whitman allow it to inspect the project area while the project operates to monitor compliance with its terms and conditions. Certification condition 23 requires this measure.

38. Massachusetts DFW recommended that it be provided the ability to add to and alter its terms and conditions. Standard license Article 11 (Form L-14) requires that the licensee shall, for the conservation and development of fish and wildlife resources, construct, maintain, and operate, or arrange for the construction, maintenance, and operation of such reasonable facilities, and comply with such reasonable modifications of the project structures and operation, as may be ordered by the Commission upon its own motion or upon the recommendation of the Secretary of the Interior or the fish and wildlife agency or agencies of any State in which the project or a part thereof is located, after notice and opportunity for hearing. Therefore, there is already a provision in the license for addressing future fish passage needs at the project.

39. Massachusetts DFW recommended that its terms and conditions be conveyed with any lease, sale, or otherwise of the license. Standard license Articles 1 and 5 of this license (Form L-14) require that any future conveyance of the license would be subject to all of the provisions, terms, and conditions of the existing license. Therefore, Massachusetts DFW's recommendation is required by the standard license Articles 1 and 5.

B. Flow Agreements

40. Crocker Pond dam, which Whitman owns, is subject to a flow agreement dated September 25, 1972 (1972 Agreement). This flow agreement is between Weyerhaeuser Company, Nashua River Reservoir Company (predecessor of Whitman), the City of Fitchburg, Massachusetts, and the United States Environmental Protection Agency. The flow agreement was established to ensure adequate flow existed in the downstream Nashua River to accommodate discharge from Fitchburg's West Sewage Treatment Plant.

41. Whitman also has water supply obligations as outlined in a deed dated August 15, 1994 (1994 Agreement), and as amended on May 16, 2002. In the 1994 Agreement, Whitman, as grantor, must make certain flow releases upon request of the other parties (i.e., the grantees) to support the efficient operation of the grantees' facilities.

42. The flow obligations included in both the 1972 Agreement and the 1994 Agreement could require Whitman to deviate from operating the project in a run-of-river mode because their implementation could result in Whitman releasing flows from the dam that would be greater than inflow to the impoundment. Fitchburg's treatment plant covered by the 1972 Agreement is no longer operational, and the 1972 Agreement expires on September 25, 2012. Therefore, project operations will not be affected by this agreement.

43. However, Whitman could be called upon at any time to release flows under the 1994 Agreement. There is no information in the record to indicate how frequently or for how long this flow obligation could be called upon; however, Massachusetts DEP's certification condition requiring run-of-river operation allows for temporary modification of project operations under certain conditions;²² therefore, it is possible Whitman could deviate from run-of-river operation to make releases under the 1994 Agreement without violating its license. Finally, Article 401 requires Whitman to notify Massachusetts DEP, Massachusetts DFW, FWS, and the Commission of any deviations from run-of-river operation.

²² Certification condition 13 states that the run-of-river operating regime "may be temporarily modified by approved maintenance activities, agreement between project owner and appropriate state and/or federal resource agencies, or by extreme hydrologic conditions or emergency electrical system conditions... ."

EXEMPTION OF THE FERC FORM 80 RECREATION REPORT

44. The FERC Form 80 Recreation Report (Form 80) collects recreation usage data on recreation facilities at projects through the term of their licenses. Because the Crocker Dam Project has no recreation facilities, the licensee is exempt from filing the Form 80 during the term of its license (Article 405).

ADMINISTRATIVE PROVISIONS

A. Annual Charges

45. The Commission collects annual charges from licensees for administration of the FPA. Article 201 provides for the collection of funds for administration of the FPA. Under the regulations currently in effect, projects with authorized installed capacity of less than or equal to 1,500 kW, like this project, will not be assessed an annual charge.

B. Exhibit F Drawings

46. The Commission requires licensees to file sets of approved project drawings on microfilm and in electronic file format. The Exhibit F drawings filed on August 29, 2011, are approved and made part of this license by ordering paragraph (C). Article 202 requires filing of these drawings.

C. Exhibit G Drawings

47. The Commission requires licensees to file sets of approved project drawings on microfilm and in electronic file format. Whitman filed two Exhibit G drawings with the license application. Both include three known reference points and are stamped by a registered land surveyor. Exhibit G-1 shows an overview of the project and a boundary that encloses all the project facilities, except for a 20- to 30-foot-long portion of the proposed transmission line. Exhibit G-2 shows a close-up of the dam area details and also shows the proposed transmission line, which extends about 20 to 30 feet outside the boundary, on lands not owned by Whitman, to the point of interconnection with the grid. For this reason, Exhibits G-1 and G-2 are not approved and are not made part of the license by ordering paragraph (C). Article 203 requires Whitman to file revised Exhibits G-1 and G-2 drawings that include the entire transmission line within the project boundary and comply with sections 4.39 and 4.41 of the Commission's regulations.²³

²³ 18 C.F.R. §§ 4.39, 4.41 (2012).

D. Headwater Benefits

48. Some projects directly benefit from headwater improvements that were constructed by other licensees, the United States, or permittees. Article 204 requires the licensee to reimburse such entities for these benefits if they were not previously assessed and reimbursed.

E. Project Land Rights Progress Report

49. The Exhibit G-2 drawing filed with the application for license shows a portion of the proposed transmission line extending outside the project boundary and the boundary of Whitman's property ownership. Article 203 requires Whitman to revise the project boundary to include the entire length of the transmission line to the point of interconnection with the regional grid, which will require Whitman to acquire title in fee or the rights to those lands. Standard Article 5 set forth in L-Form 14 requires the licensee to acquire title in fee or the right to use in perpetuity all lands, other than lands of the United States, necessary or appropriate for the construction, maintenance, and operation of the project, within five years.

50. In addition, the 1994 Agreement and a 2002 amendment to the Agreement state that Whitman, as grantor, is responsible for maintenance, repair, and upkeep of the premises, including Crocker Pond dam. The 1994 Agreement, as amended, states that the grantees may request that Whitman perform dam maintenance or repair and if Whitman does not comply with the request, the grantees can exercise "self-help." The self-help language potentially allows one of the grantees to independently perform dam maintenance or alter dam operations. Under the terms and conditions of a Commission license, only the licensee may operate the dam and perform maintenance as authorized by the Commission.

51. Further, the property in Whitman's deed 5627, is within a wetland buffer zone managed by Westminster Conservation Commission. That deed states that the buffer zone land must be "left and maintained in its natural undisturbed condition [...]. In particular, no structures and no buildings may be located in the Buffer Zone other than utility poles to provide nighttime lighting during the winter months for ice-skating." While Whitman has secured authorization from the Westminster Conservation Commission to develop the project within buffer zone areas, authorization for future operation or maintenance of the project within the buffer zone is required to ensure dam safety and project operation and maintenance during the term of the license.

52. Under Article 5 (Form L-14), Whitman has five years to obtain all necessary rights to construct and operate the project, which includes removing the "right of self-help" from the 1994 Agreement as amended, and obtaining authorization for future operation

and maintenance of the project within the buffer zone. Article 205 requires the licensee to file, no later than four years after license issuance, a report detailing its progress on acquiring title in fee or the necessary rights to all lands within the project boundary. The report shall include specific documentation on the status of the rights that have been acquired as of the filing date of the progress report, and a plan and schedule to acquire all remaining land prior to the five-year deadline.²⁴

F. Project Financing

53. To ensure that there are sufficient funds available for project construction, Article 206 requires the licensee to file for Commission approval documentation of project financing necessary for project construction at least 90 days before starting any construction associated with the project.

G. Use and Occupancy of Project Lands and Waters

54. Requiring a licensee to obtain prior Commission approval for every use or occupancy of project land would be unduly burdensome. Therefore, Article 406 allows the licensee to grant permission, without prior Commission approval, for the use and occupancy of project lands for such minor activities as landscape planting. Such uses must be consistent with the purposes of protecting and enhancing the scenic and environmental values of the project.

H. Start of Construction

55. Article 301 requires the licensee to commence construction of the project works within two years from the issuance date of this license and complete construction of the project within five years from the issuance date of the license.

I. Review of Final Plans and Specifications

56. Article 302 requires the licensee to provide the Commission's Division of Dam Safety and Inspection New York Regional Office (D2SI-NYRO) with final contract drawings and specifications—together with a supporting design report consistent with the Commission's engineering guidelines. The submittal shall include a temporary emergency action plan and a quality control and inspection program.

²⁴ Furthermore, any provisions in Whitman's deeds or agreements that are inconsistent with this license, (e.g. "draw-down" provisions that prevent the licensee from lowering Crocker pond), must be updated prior to the five-year deadline.

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57. Article 303 requires the licensee to provide the Commission's D2SI-NYRO with cofferdam construction drawings.

58. Where new construction or modifications to the project are involved, the Commission requires licensees to file revised drawings of project features as-built. Article 304 provides for the filing of these drawings.

59. Article 305 requires the licensee to provide the Commission's D2SI-NYRO with a dam safety program.

60. Article 306 requires the licensee to provide the Commission's D2SI-NYRO with a public safety plan.

61. Article 307 requires the licensee to provide the Commission's D2SI-NYRO with an independent consultant inspection report.

62. Where project modifications are proposed as a result of environmental requirements, the Commission requires licensees to file a plan and schedule of any proposed modifications to project operation or to the water retaining and/or conveyance features of the project. Article 308 provides for the filing of this plan and schedule.

J. Commission Approval of Resource Plans, Reports, Notifications, and Filing of Amendments

63. In Appendix A there are certain certification conditions that either do not require the licensee to file plans with the Commission or do not provide for consultation with the appropriate agencies during plan development. Therefore, Article 401 requires the licensee to consult with the other agencies during plan development and to file the plans with the Commission for approval, notify the Commission of emergencies and other activities, and file amendment applications, as appropriate.

STATE AND FEDERAL COMPREHENSIVE PLANS

64. Section 10(a)(2)(A) of the FPA²⁵ requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by the project.²⁶ Under

²⁵ 16 U.S.C. § 803(a)(2)(A) (2006).

²⁶ Comprehensive plans for this purpose are defined at 18 C.F.R. § 2.19

(continued)

section 10(a)(2)(A), federal and state agencies filed 23 comprehensive plans that address various resources in Massachusetts. Of these, the staff identified and reviewed five comprehensive plans that are relevant to this project.²⁷ No conflicts were found.

CONSERVATION EFFORTS

65. Section 10(a)(2)(C) of the FPA²⁸ requires the Commission to consider the electricity consumption improvement programs of the applicant, including its plans, performance, and capabilities for encouraging or assisting its customers to conserve electricity cost-effectively, taking into account the published policies, restrictions, and requirements of state regulatory authorities. Whitman will sell the project's power into the regional grid owned by National Grid. National Grid is a local utility that supplies and transmits power to the local distribution circuit, and provides opportunities for end-use customers to reduce their demand for electricity.²⁹

66. Staff concludes that, given the limits of its ability to influence users of the electricity generated by the project, Whitman will comply with section 10(a)(2)(C) of the FPA.

SAFE MANAGEMENT, OPERATION, AND MAINTENANCE OF THE PROJECT

67. The project is subject to the requirements of 18 C.F.R. Part 12 and evaluated according to the criteria provided in the Commission's Engineering Guidelines. Staff concludes that there is no reason to believe that Whitman cannot safely manage, operate, and maintain the dam and other project works in accordance with the Commission's standards and oversight.

(2012).

²⁷ The list of applicable plans can be found in section 5.5 of the EA for the project.

²⁸ 16 U.S.C. § 803(a)(2)(C) (2006).

²⁹ www.nationalgridus.com/masselectric/home/energychoice/3_renewable.asp.

NEED FOR POWER

68. To assess the need for power, staff looked at the needs in the operating region in which the project is located. Project power will be used to meet regional electrical demand. The project is located in the Northeast Power Coordinating Council, Inc. (NPCC) region of the North American Electric Reliability Council (NERC). According to NERC, summer peak demand in the NPCC region is projected to grow at an annual rate of 1.4 percent from 2011 through 2020. The project's power and contribution to the region's diversified generation mix will help meet a need for power in the region.

PROJECT ECONOMICS

69. In determining whether to issue a license for a hydroelectric project, the Commission considers a number of public interest factors, including the economic benefits of project power. Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in *Mead Corp.*,³⁰ the Commission uses current costs to compare the costs of the project and likely alternative power with no forecasts concerning potential future inflation, escalation, or deflation beyond the license issuance date. The basic purpose of the Commission's economic analysis is to provide a general estimate of the potential power benefits and the costs of a project, and of reasonable alternatives to project power. The estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license.

70. In applying this analysis to the Crocker Dam Project, Commission staff have considered two options: Whitman's proposal and the project as licensed herein. As proposed by Whitman, the levelized annual cost of operating the Crocker Dam Project is \$213,950, or \$241.08/MWh. The proposed project would generate an estimated average of 887.45 MWh of energy annually. When staff multiplies its estimate of average annual generation by the alternative power cost of \$53.23/MWh,³¹ staff gets a total value of the project's power of \$47,239 in 2012 dollars. To determine whether the proposed project is currently economically beneficial, staff subtracts the project's cost from the value of the

³⁰ 72 FERC ¶ 61,027 (1995).

³¹ The alternative power cost of \$53.23 per MWh is based on information obtained from the Energy Information Administration fuel cost data for natural gas.

project's power.³² Therefore, in the first year of operation, the project would cost \$166,711, or \$187.85/MWh, more than the likely alternative cost of power.

71. As licensed herein with mandatory conditions and staff measures, the levelized annual cost of operating the project would be about \$216,250, or \$243.68/MWh. Based on an estimated average generation of 887.45 MWh as licensed, the project would produce power valued at \$47,239 when multiplied by the \$53.23/MWh value of the project's power. Therefore, in the first year of operation, project power would cost \$169,011, or \$190.45/MWh, more than the likely cost of alternative power.

72. In considering public interest factors, the Commission takes into account that hydroelectric projects offer unique operational benefits to the electric utility system (ancillary service benefits). These benefits include their ability to help maintain the stability of a power system, such as by quickly adjusting power output to respond to rapid changes in system load; and to respond rapidly to a major utility system or regional blackout by providing a source of power to help restart fossil-fuel based generating stations and put them back on line.

73. Although staff's analysis shows that the project as licensed herein would cost more to operate than our estimated cost of alternative power, it is the applicant who must decide whether to accept this license and any financial risk that entails.

74. Although staff does not explicitly account for the effects inflation may have on the future cost of electricity, the fact that hydropower generation is relatively insensitive to inflation compared to fossil-fueled generators is an important economic consideration for power producers and the consumers they serve. This is one reason project economics is only one of the many public interest factors the Commission considers in determining whether or not, and under what conditions, to issue a license.

COMPREHENSIVE DEVELOPMENT

75. Sections 4(e) and 10(a)(1) of the FPA³³ require the Commission to give equal consideration to power development purposes and to the purposes of energy conservation; the protection, mitigation of damage to, and enhancement of fish and

³² Details of staff's economic analysis for the project as licensed herein and for various alternatives are included in the EA issued July 2012.

³³ 16 U.S.C. §§ 797(e) and 803(a)(1) (2006).

wildlife; the protection of recreational opportunities; and the preservation of other aspects of environmental quality. Any license issued shall be such as in the Commission's judgment will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all beneficial public uses. The decision to license this project, and the terms and conditions included herein, reflect such consideration.

76. The EA for the project contains background information, analysis of effects, and support for related license articles. I conclude based on the record of this proceeding, including the EA and the comments thereon, that licensing the Crocker Dam Project as described in this order would not constitute a major federal action significantly affecting the quality of the human environment. The project will be safe if operated and maintained in accordance with the requirements of this license.

77. Based on my independent review and evaluation of the Crocker Dam Project, recommendations from the resource agencies and other stakeholders, and the no-action alternative, as documented in the EA, I have selected the proposed Crocker Dam Project, with the staff-recommended measures, and find that it is best adapted to a comprehensive plan for improving or developing the Whitman River.

78. I selected this alternative because: (1) issuance of an original license will serve to provide a beneficial and dependable source of electric energy; (2) the required environmental measures will protect and enhance fish, water quality, and historic properties; and (3) the 145 kW of electric capacity comes from a renewable resource may that does not contribute to atmospheric pollution.

LICENSE TERM

79. Section 6 of the FPA³⁴ provides that original licenses for hydropower projects shall be issued for a period not to exceed 50 years. The Commission's general policy is to establish 30-year terms for projects with little or no redevelopment, new construction, new capacity, or environmental mitigation and enhancement measures; 40-year terms for projects with a moderate amount of such activities; and 50-year terms for projects with extensive measures.³⁵ This license requires a moderate amount of new construction including a powerhouse, penstock extension, trashrack, tailrace, and transmission line. Consequently, a 40-year license for the Crocker Dam Project is appropriate.

³⁴ 16 U.S.C. § 799 (2006).

³⁵ See *City of Danville, Virginia*, 58 FERC ¶ 61,318 at 62,020 (1992).

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The Director orders:

(A) This license is issued to Whitman River Dam, Inc. (licensee), for a period of 40 years, effective the first day of the month in which this order is issued, to construct, operate, and maintain the Crocker Dam Hydroelectric Project. This license is subject to the terms and conditions of the Federal Power Act (FPA), which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the FPA.

(B) The project consists of:

(1) All lands, to the extent of the licensee's interests in these lands, described in the project description and the project boundary discussion of this order.

(2) Project works consisting of: (a) the existing 520-foot-long, 38.5-foot-high earthen embankment and masonry Crocker Pond dam with a 120-foot-long arched spillway section topped with existing 26-inch-high wooden flashboards; (b) an existing 102.9-acre impoundment at a normal water surface elevation of 752.66 feet above mean sea level; (c) an existing 8-foot-wide, 12-foot-high floodgate; (d) an existing 3-foot-wide, 3-foot-high mud gate; (e) an existing gate house equipped with a 47-foot-long, 42-inch-diameter penstock and a new 18-foot-wide, 6.5-foot-high metal trashrack with 1-inch-wide bar spacing; (f) a new 6-foot-long, 42-inch-diameter penstock extension; (g) a new powerhouse containing one 145-kilowatt turbine generating unit; (h) a new 20-foot-wide, 6-foot-deep, 35-foot-long tailrace; (i) a new 240-foot-long, 480-volt transmission line; and (j) appurtenant facilities.

The project works generally described above are more specifically shown and described by those portions of Exhibits A and F shown below:

Exhibit A: The following sections of Exhibit A of the license application filed on August 29, 2011:

Pages 3 through 6 of Exhibit A, entitled "Project Description," describing the project's structural, mechanical, electrical, and transmission equipment.

Exhibit F: The following Exhibit F drawings filed on August 29, 2011.

| <u>Exhibit F Drawing</u> | <u>FERC No. 13237-</u> | <u>Description</u> |
|--------------------------|------------------------|--------------------------|
| Sheet F-1 | 1 | Powerhouse Location Plan |

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| <u>Exhibit F Drawing</u> | <u>FERC No. 13237-</u> | <u>Description</u> |
|--------------------------|------------------------|---------------------------|
| Sheet F-2 | 2 | Powerhouse Section View |
| Sheet F-3 | 3 | Powerhouse Location Plan |
| Sheet F-4 | 4 | Tailrace Cross Sections |
| Sheet F-5 | 5 | Plan and Elevation of Dam |

(3) All of the structures, fixtures, equipment, or facilities used to operate or maintain the project, all portable property that may be employed in connection with the project, and all riparian or other rights that are necessary or appropriate in the operation or maintenance of the project.

(C) The Exhibits A and F described above are approved and made part of this license. The Exhibit G drawings filed as part of the application for license do not conform to Commission regulations and are not approved.

(D) The following sections of the FPA are waived and excluded from the license for this minor project:

4(b), except the second sentence; 4(e), insofar as it relates to approval of plans by the Chief of Engineers and the Secretary of the Army; 6, as it relates to the acceptance and expression in the license of terms and conditions of the Act that are waived here; 10(c), insofar as it relates to depreciation reserves; 10(d); 10(f); 14, except insofar as the power of condemnation is reserved; 15; 16; 19; 20; and 22.

(E) This license is subject to the conditions submitted by the Massachusetts Department of Environmental Protection under section 401(a)(1) of the Clean Water Act, 33 U.S.C. § 1341(a)(1) (2006), as those conditions are set forth in Appendix A to this order.

(F) This license is also subject to the articles set forth in Form L-14 (Oct. 1975), entitled "Terms and Conditions of License for Unconstructed Minor Project Affecting Navigable Waters of the United States" (*see* 54 F.P.C. 1799 *et seq.*), as set forth in this order, including the following additional articles:

Article 201. Administrative Annual Charges. The licensee shall pay the United States the following annual charges, as determined in accordance with provisions of the

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Commission's regulations in effect from time to time. Effective as of the date of commencement of project construction, the licensee shall reimburse the United States for the cost of administration of Part 1 of the Federal Power Act. The authorized installed capacity for that purpose is 145 kilowatts. Under the regulations currently in effect, projects with authorized installed capacity of less than or equal to 1,500 kW will not be assessed an annual charge.

Article 202. Exhibit F Drawings. Within 45 days of the date of issuance of this license, the licensee shall file the approved exhibit drawings in aperture card and electronic file formats.

(a) Three sets of the approved exhibit drawings shall be reproduced on silver or gelatin 35mm microfilm. All microfilm shall be mounted on type D (3-1/4" X 7-3/8") aperture cards. Prior to microfilming, the FERC Project-Drawing Number (i.e., P-13237-1 through P-13237-5) shall be shown in the margin below the title block of the approved drawing. After mounting, the FERC Drawing Number shall be typed on the upper right corner of each aperture card. Additionally, the Project Number, FERC Exhibit (i.e., F-1, G-1, etc.), Drawing Title, and date of this license shall be typed on the upper left corner of each aperture card.

Two of the sets of aperture cards shall be filed with the Secretary of the Commission, ATTN: OEP/DHAC. The third set shall be filed with the Commission's Division of Dam Safety and Inspections New York Regional Office.

(b) The licensee shall file two separate sets of exhibit drawings in electronic raster format with the Secretary of the Commission, ATTN: OEP/DHAC. A third set shall be filed with the Commission's Division of Dam Safety and Inspections New York Regional Office. Exhibit F drawings must be identified as Critical Energy Infrastructure Information (CEII) material under 18 C.F.R. § 388.113(c)(2012). Each drawing must be a separate electronic file, and the file name shall include: FERC Project-Drawing Number, FERC Exhibit, Drawing Title, date of this license, and file extension in the following format [P-13237-1, G-1, Description, MM-DD-YYYY.TIF]. Electronic drawings shall meet the following format specification:

IMAGERY – black & white raster file

FILE TYPE – Tagged Image File Format (TIFF), CCITT Group 4

RESOLUTION – 300 dpi desired (200 dpi min)

DRAWING SIZE FORMAT – 24" X 36" (min), 28" X 40" (max)

FILE SIZE – less than 1 MB desired.

Article 203. Exhibit G Drawings. Within 90 days of the issuance date of the license, the licensee shall file, for Commission approval, revised Exhibit G-1 and G-2 drawings enclosing within the project boundary all principal project works necessary for operation and maintenance of the project, including the proposed transmission line to the point of interconnection with the regional distribution grid. The Exhibit G drawings must comply with sections 4.39 and 4.41 of the Commission's regulations.

Article 204. Headwater Benefits. If the licensee's project is directly benefited by the construction work of another licensee, a permittee, or of the United States of a storage reservoir or other headwater improvement, the licensee shall reimburse the owner of the headwater improvement for those benefits, at such time as they are assessed. The benefits will be assessed in accordance with Subpart B of the Commission's regulations.

Article 205. Project Land Rights Progress Report. No later than four years after license issuance, the licensee shall file a report with the Commission describing the status of acquiring title in fee or the rights for all the lands within the project boundary. The report must provide an overview map of each parcel and summary table identifying the licensee's rights over each parcel within the project boundary. The report shall also include specific supporting documentation showing the status of the land rights on all parcels of land within the project boundary that: (1) have been acquired up to the date of filing of the report, including pertinent deeds, lease agreements, and/or bill of sale information that specifically verify the licensee's rights; and (2) the licensee's plan and schedule for acquiring all remaining project lands prior to the five-year deadline, including a history of actions taken, current owner information, the type of ownership to be acquired whether in fee or by easement, and the timeline for completing property acquisition.

Article 206. Documentation of Project Financing. At least 90 days before starting construction, the licensee shall file with the Commission, for approval, three copies of the licensee's documentation for the project financing. The documentation must show that the licensee has acquired the funds, or commitment for funds, necessary to construct the project in accordance with this license. The documentation must include, at a minimum, financial statements, including a balance sheet, income statement, and a statement of actual or estimated cash flows over the license term which provide evidence that the licensee has sufficient assets, credit, and projected revenues to cover project construction, operation, and maintenance expenses, and any other estimated project liabilities and expenses.

The financial statements must be prepared in accordance with generally accepted accounting principles and signed by an independent certified public accountant. The

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licensee shall not commence project construction associated with the project before the filing is approved.

Article 301. *Start of Construction.* The licensee shall commence construction of the project works within two years from the issuance date of the license and shall complete construction of the project within 5 years from the issuance date of the license.

Article 302. *Contract Plans and Specifications.* At least 60 days prior to the start of any construction, the Licensee shall submit one copy of its plans and specifications and supporting design document to the Commission's Division of Dam Safety and Inspections (D2SI)-New York Regional Engineer, and two copies to the Commission (one of these shall be a courtesy copy to the Director, D2SI). The submittal to the D2SI-New York Regional Engineer must also include as part of preconstruction requirements: a Quality Control and Inspection Program, and Temporary Construction Emergency Action Plan. The licensee may not begin construction until the D2SI-New York Regional Engineer has reviewed and commented on the plans and specifications, determined that all preconstruction requirements have been satisfied, and authorized start of construction.

Article 303. *Cofferdam Construction Drawings and Deep Excavations.* Before starting construction, the licensee shall review and approve the design of contractor-designed cofferdams and deep excavations and shall make sure construction of cofferdams and deep excavations is consistent with the approved design. At least 30 days before starting construction of the cofferdam, the licensee shall submit one copy to the Commission's Division of Dam Safety and Inspections (D2SI)-New York Regional Engineer and two copies to the Commission (one of these copies shall be a courtesy copy to the Commission's Director, D2SI), of the approved cofferdam construction drawings and specifications and the letters of approval.

Article 304. *As-built Drawings.* Within 90 days of completion of construction of the facilities authorized by this license, the licensee shall file for Commission approval, revised Exhibits A, F, and G, as applicable, to describe and show those project facilities as built. A courtesy copy shall be filed with the Commission's Division of Dam Safety and Inspections (D2SI)-New York Regional Engineer, the Director, D2SI, the Director, Division of Hydropower Administration and Compliance, the Massachusetts Department of Fish and Wildlife, and the U.S. Fish and Wildlife Service.

Article 305. *Licensee's Dam Safety Program.* Within 90 days of the issuance date of the license, the licensee shall submit to the Commission's Division of Dam Safety and Inspections – New York Regional Engineer, a Dam Safety Program that at a minimum demonstrates a clear acknowledgement of the licensee's responsibility for the safety of the project, an outline of the roles and responsibilities of the licensee's dam safety staff,

and access of the licensee's dam safety official to the Chief Executive Officer (CEO). For guidance on what constitutes a good dam safety program the licensee shall reference the information posted on the FERC website at <http://www.ferc.gov/industries/hydropower/safety/initiatives/odsp.asp>.

Article 306. Public Safety Plan. Within 60 days from the issuance date of this license, the licensee shall submit one copy to the Commission's Division of Dam Safety and Inspections (D2SI)-New York Regional Engineer and two copies to the Commission (one of these copies shall be a courtesy copy to the Commission's Director, D2SI) of a Public Safety Plan. The plan shall include an evaluation of public safety concerns at the project site, including any designated recreation areas, and assess the need for the installation of safety devices or other safety measures. The submitted plan should include a description of all public safety measures and signage, as well as a map showing the locations of all public safety measures. For guidance on preparing public safety plans the licensee should review the *Guidelines for Public Safety at Hydropower Projects* on the FERC website.

Article 307. Inspection by Independent Consultant. In accordance with Part 12, *Safety of Water Power Projects and Project Works*, of the Commission's Regulations, the initial independent consultant's inspection of the project must be completed and the report on the inspection filed within two years of the issuance date of the license.

Article 308. Project Modification Resulting from Environmental Requirements. The planning and design of any permanent or temporary modification which affects the project works or operation resulting from environmental requirements shall be coordinated as early as feasible with the Commission's Division of Dam Safety and Inspections (D2SI) – New York Regional Engineer. Within 90 days of issuance date of the license a letter is to be sent to the D2SI – New York Regional Engineer providing a plan and schedule of any proposed modifications to the project operations or to the water retaining and/or conveyance features of the project in the planning and design phase resulting from environmental requirements of the license. The schedule is to allow sufficient review time for the Commission to insure that the proposed work does not adversely affect the project works, dam safety, or project operation.

Article 401. Commission Approval, Notification, and Filing of Amendments.

(a) Requirement to File Plans for Commission Approval.

Various conditions of this license found in the Massachusetts Department of Environmental Protection (Massachusetts DEP) water quality certification (certification) issued pursuant to section 401 of the Clean Water Act (Appendix A) require the licensee

to prepare plans in consultation with state and federal agencies but without submittal to or approval by the Commission. Each such plan also shall be submitted to the Commission for approval. These plans are listed below.

| Massachusetts DEP certification condition | Plan name | Due date |
|---|--|---|
| 9 | Erosion monitoring and control plan | Within six months of license issuance or 60 days prior to commencing construction of the project, whichever occurs first |
| 17 | Run-of-river operation monitoring plan | Within six months of license issuance or within three months of completion of turbine installation at the dam, whichever occurs first |
| 18 | Dissolved oxygen and water temperature monitoring plan | Within six months of license issuance or within three months of completion of turbine installation at the dam, whichever occurs first |

The licensee shall include with each plan filed with the Commission documentation that the licensee developed the plan in consultation with the Massachusetts DEP, Massachusetts Department of Fish and Wildlife (Massachusetts DFW), and the U.S. Department of the Interior's Fish and Wildlife Service (FWS) and has received approval from Massachusetts DEP. The Commission reserves the right to make changes to any plan submitted. Upon Commission approval, the plan becomes a requirement of this license, and the licensee shall implement the plan or changes in project operation or facilities, including any changes required by the Commission.

(b) Requirement to Notify Commission of Emergencies and Other Activities.

If licensee temporarily modifies run-of-river project operation due to an emergency situation, extreme hydrological conditions, or other reason as provided in certification condition 13, the license must notify the Commission, Massachusetts DEP, Massachusetts DFW, and FWS prior to implementing such modifications, if possible, or in the event of an emergency, as soon as possible, but no later than 10 days after each such incident.

(c) Requirement to File Amendment Applications.

Certain certification conditions in Appendix A contemplate unspecified long-term changes to project operations or facilities for the purpose of mitigating environmental impacts, but do not appear to require prior Commission approval for such changes. These changes may not be implemented without prior Commission authorization, granted after the filing of an application to amend the license.

Article 402. *Notification of Commencement of Project Operation.* The run-of-river operation monitoring plan required by certification condition 17 shall include a requirement to notify the Massachusetts Department of Fisheries and Wildlife, U.S. Fish and Wildlife Service, Massachusetts Department of Environmental Protection, and the Commission within 30 days of the commencement of project operation.

Article 403. *Protection of Undiscovered Cultural Resources.* If the licensee discovers previously unidentified cultural resources during the course of constructing, maintaining, or developing project works or other facilities at the project, the licensee shall stop all land-clearing and land-disturbing activities in the vicinity of the resource and consult with the Massachusetts State Historic Preservation Officer (Massachusetts SHPO) to determine the need for any cultural resource studies or measures. If no studies or measures are needed, the licensee shall file with the Commission documentation of its consultation with the Massachusetts SHPO.

If a discovered cultural resource is determined to be eligible for the National Register of Historic Places (National Register), the licensee shall file for Commission approval an historic properties management plan (HPMP) prepared by a qualified cultural resource specialist after consultation with the Massachusetts SHPO. In developing the HPMP, the licensee shall use the Advisory Council on Historic Preservation and the Commission's *Guidelines for the Development of Historic Properties Management Plans for FERC Hydroelectric Projects*, dated May 20, 2002. The HPMP shall include the following items: (1) a description of each discovered property, indicating whether it is listed in or eligible for listing in the National Register; (2) a description of the potential effect on each discovered property; (3) proposed measures for avoiding or mitigating adverse effects; (4) documentation of the nature and extent of consultation; and (5) a schedule for implementing mitigation and conducting additional studies. The Commission reserves the right to require changes to the HPMP.

The licensee shall not resume land-clearing or land-disturbing activities in the vicinity of a cultural resource discovered during construction, until informed by the Commission that the requirements of this article have been fulfilled.

Article 404. Protection of Cultural Resources. Prior to implementing any project modifications not specifically authorized by this license, including but not limited to maintenance activities, land-clearing or land-disturbing activities, or changes to project operation or facilities, the licensee shall consult with the Massachusetts State Historic Preservation Office (Massachusetts SHPO) to determine the effects of the activities and the need for any cultural resource studies or measures. If no studies or measures are needed, the licensee shall file with the Commission documentation of its consultation with the Massachusetts SHPO.

If a project modification is determined to affect an historic property, the licensee shall file for Commission approval an historic properties management plan (HPMP) prepared by a qualified cultural resource specialist after consultation with the Massachusetts SHPO. In developing the HPMP, the licensee shall use the Advisory Council on Historic Preservation and the Commission's *Guidelines for the Development of Historic Properties Management Plans for FERC Hydroelectric Projects*, dated May 20, 2002. The HPMP shall include the following items: (1) a description of each historic property; (2) a description of the potential effect on each historic property; (3) proposed measures for avoiding or mitigating adverse effects; (4) documentation of the nature and extent of consultation; and (5) a schedule for implementing mitigation and conducting additional studies. The Commission reserves the right to require changes to the HPMP.

The licensee shall not implement any project modifications, other than those specifically authorized in this license, until informed by the Commission that the requirements of this article have been fulfilled.

Article 405. FERC Form 80 Exemption. Upon the effective date of the license, the licensee is exempt from section 18 C.F.R. § 8.11, the filing of the FERC Form 80 recreation report, for the Crocker Dam Project.

Article 406. Use and Occupancy. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee shall also have continuing responsibility to supervise and control the use and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project's scenic,

recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The type of use and occupancy of project lands and waters for which the licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 water craft at a time and where said facility is intended to serve single-family type dwellings; (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline; and (4) food plots and other wildlife enhancement. To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the licensee shall: (1) inspect the site of the proposed construction, (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site, and (3) determine that the proposed construction is needed and would not change the basic contour of the impoundment shoreline. To implement this paragraph (b), the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee's costs of administering the permit program. The Commission reserves the right to require the licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The licensee may convey easements or rights-of-way across, or leases of project lands for: (1) replacement, expansion, realignment, or maintenance of bridges or roads where all necessary state and federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kV or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project impoundment. No later than January 31 of each year, the licensee shall

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file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 water craft at a time and are located at least one-half mile (measured over project waters) from any other private or public marina; (6) recreational development consistent with an approved report on recreational resources of an Exhibit E; and (7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from project waters at normal surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year. At least 60 days before conveying any interest in project lands under this paragraph (d), the licensee must submit a letter to the Director, Office of Energy Projects, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked Exhibit G map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the licensee to file an application for prior approval, the licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article:

(1) Before conveying the interest, the licensee shall consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer.

(2) Before conveying the interest, the licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved report on recreational resources of an Exhibit E; or, if the project does not have an approved report on recreational resources, that the lands to be conveyed do not have recreational value.

(3) The instrument of conveyance must include the following covenants running with the land: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; and (ii) the grantee shall take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project.

(4) The Commission reserves the right to require the licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised Exhibit G drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised Exhibit G drawings would be filed for approval for other purposes.

(g) The authority granted to the licensee under this article shall not apply to any part of the public lands and reservations of the United States included within the project boundary.

(G) The licensee shall serve copies of any Commission filing required by this order on any entity specified in the order to be consulted on matters related to that filing. Proof of service on these entities must accompany the filing with the Commission.

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(H) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in section 313(a) of the FPA, 16 U.S.C. § 8251 (2006), and section 385.713 of the Commission's regulations, 18 C.F.R. § 385.713 (2012). The filing of a request for rehearing does not operate as a stay of the effective date of this license or of any other date specified in this order. The licensee's failure to file a request for rehearing shall constitute acceptance of this order.

Jeff C. Wright
Director
Office of Energy Projects

Form L-14
(October, 1975)

FEDERAL ENERGY REGULATORY COMMISSION

**TERMS AND CONDITIONS OF LICENSE FOR
UNCONSTRUCTED MINOR PROJECT AFFECTING
NAVIGABLE WATERS OF THE UNITED STATES**

Article 1. The entire project, as described in this order of the Commission, shall be subject to all of the provisions, terms, and conditions of the license.

Article 2. No substantial change shall be made in the maps, plans, specifications, and statements described and designated as exhibits and approved by the Commission in its order as a part of the license until such change shall have been approved by the Commission: Provided, however, That if the Licensee or the Commission deems it necessary or desirable that said approved exhibits, or any of them, be changed, there shall be submitted to the Commission for approval a revised, or additional exhibit or exhibits covering the proposed changes which, upon approval by the Commission, shall become a part of the license and shall supersede, in whole or in part, such exhibit or exhibits theretofore made a part of the license as may be specified by the Commission.

Article 3. The project works shall be constructed in substantial conformity with the approved exhibits referred to in Article 2 herein or as changed in accordance with the provisions of said article. Except when emergency shall require for the protection of navigation, life, health, or property, there shall not be made without prior approval of the Commission any substantial alteration or addition not in conformity with the approved plans to any dam or other project works under the license or any substantial use of project lands and waters not authorized herein; and any emergency alteration, addition, or use so made shall thereafter be subject to such modification and change as the Commission may direct. Minor changes in project works, or in uses of project lands and waters, or divergence from such approved exhibits may be made if such changes will not result in a decrease in efficiency, in a material increase in cost, in an adverse environmental impact, or in impairment of the general scheme of development; but any of such minor changes made without the prior approval of the Commission, which in its judgment have produced or will produce any of such results, shall be subject to such alteration as the Commission may direct.

Upon the completion of the project, or at such other time as the Commission may direct, the Licensee shall submit to the Commission for approval revised exhibits insofar as necessary to show any divergence from or variations in the project area and project boundary as finally located or in the project works as actually constructed when compared with the area and boundary shown and the works described in the license or in the exhibits

approved by the Commission, together with a statement in writing setting forth the reasons which in the opinion of the Licensee necessitated or justified variation in or divergence from the approved exhibits. Such revised exhibits shall, if and when approved by the Commission, be made a part of the license under the provisions of Article 2 hereof.

Article 4. The construction, operation, and maintenance of the project and any work incidental to additions or alterations shall be subject to the inspection and supervision of the Regional Engineer, Federal Energy Regulatory Commission, in the region wherein the project is located, or of such other officer or agent as the Commission may designate, who shall be the authorized representative of the Commission for such purposes. The Licensee shall cooperate fully with said representative and shall furnish him a detailed program of inspection by the Licensee that will provide for an adequate and qualified inspection force for construction of the project and for any subsequent alterations to the project. Construction of the project works or any features or alteration thereof shall not be initiated until the program of inspection for the project works or any such feature thereof has been approved by said representative. The Licensee shall also furnish to said representative such further information as he may require concerning the construction, operation, and maintenance of the project, and of any alteration thereof, and shall notify him of the date upon which work will begin, as far in advance thereof as said representative may reasonably specify, and shall notify him promptly in writing of any suspension of work for a period of more than one week, and of its resumption and completion. The Licensee shall allow said representative and other officers or employees of the United States, showing proper credentials, free and unrestricted access to, through, and across the project lands and project works in the performance of their official duties. The Licensee shall comply with such rules and regulations of general or special applicability as the Commission may prescribe from time to time for the protection of life, health, or property.

Article 5. The Licensee, within five years from the date of issuance of the license, shall acquire title in fee or the right to use in perpetuity all lands, other than lands of the United States, necessary or appropriate for the construction, maintenance, and operation of the project. The Licensee or its successors and assigns shall, during the period of the license, retain the possession of all project property covered by the license as issued or as later amended, including the project area, the project works, and all franchises, easements, water rights, and rights of occupancy and use; and none of such properties shall be voluntarily sold, leased, transferred, abandoned, or otherwise disposed of without the prior written approval of the Commission, except that the Licensee may lease or otherwise dispose of interests in project lands or property without specific written approval of the Commission pursuant to the then current regulations of the Commission. The provisions of this article are not intended to prevent the abandonment or the retirement from service of structures, equipment, or other project works in connection with replacements thereof when they become obsolete, inadequate, or inefficient for further service due to wear and tear; and mortgage or trust deeds or judicial sales made thereunder, or tax sales, shall not be deemed voluntary transfers

within the meaning of this article.

Article 6. The Licensee shall install and thereafter maintain gages and stream-gaging stations for the purpose of determining the stage and flow of the stream or streams on which the project is located, the amount of water held in and withdrawn from storage, and the effective head on the turbines; shall provide for the required reading of such gages and for the adequate rating of such stations; and shall install and maintain standard meters adequate for the determination of the amount of electric energy generated by the project works. The number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, shall at all times be satisfactory to the Commission or its authorized representative. The Commission reserves the right, after notice and opportunity for hearing, to require such alterations in the number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, as are necessary to secure adequate determinations. The installation of gages, the rating of said stream or streams, and the determination of the flow thereof, shall be under the supervision of, or in cooperation with, the District Engineer of the United States Geological Survey having charge of stream-gaging operations in the region of the project, and the Licensee shall advance to the United States Geological Survey the amount of funds estimated to be necessary for such supervision, or cooperation for such periods as may be mutually agreed upon. The Licensee shall keep accurate and sufficient records of the foregoing determinations to the satisfaction of the Commission, and shall make return of such records annually at such time and in such form as the Commission may prescribe.

Article 7. The Licensee shall, after notice and opportunity for hearing, install additional capacity or make other changes in the project as directed by the Commission, to the extent that it is economically sound and in the public interest to do so.

Article 8. The Licensee shall, after notice and opportunity for hearing, coordinate the operation of the project, electrically and hydraulically, with such other projects or power systems and in such manner as the Commission may direct in the interest of power and other beneficial public uses of water resources, and on such conditions concerning the equitable sharing of benefits by the Licensee as the Commission may order.

Article 9. The United States specifically retains and safeguards the right to use water in such amount, to be determined by the Secretary of the Army, as may be necessary for the purposes of navigation on the navigable waterway affected; and the operations of the Licensee, so far as they affect the use, storage and discharge from storage of waters affected by the license, shall at all times be controlled by such reasonable rules and regulations as the Secretary of the Army may prescribe in the interest of navigation, and as the Commission may prescribe for the protection of life, health, and property, and in the interest of the fullest practicable conservation and utilization of such waters for power purposes and for other beneficial public uses, including recreational purposes, and the

Licensee shall release water from the project reservoir at such rate in cubic feet per second, or such volume in acre-feet per specified period of time, as the Secretary of the Army may prescribe in the interest of navigation, or as the Commission may prescribe for the other purposes hereinbefore mentioned.

Article 10. On the application of any person, association, corporation, Federal agency, State or municipality, the Licensee shall permit such reasonable use of its reservoir or other project properties, including works, lands and water rights, or parts thereof, as may be ordered by the Commission, after notice and opportunity for hearing, in the interests of comprehensive development of the waterway or waterways involved and the conservation and utilization of the water resources of the region for water supply or for the purposes of steam-electric, irrigation, industrial, municipal or similar uses. The Licensee shall receive reasonable compensation for use of its reservoir or other project properties or parts thereof for such purposes, to include at least full reimbursement for any damages or expenses which the joint use causes the Licensee to incur. Any such compensation shall be fixed by the Commission either by approval of an agreement between the Licensee and the party or parties benefiting or after notice and opportunity for hearing. Applications shall contain information in sufficient detail to afford a full understanding of the proposed use, including satisfactory evidence that the applicant possesses necessary water rights pursuant to applicable State law, or a showing of cause why such evidence cannot concurrently be submitted, and a statement as to the relationship of the proposed use to any State or municipal plans or orders which may have been adopted with respect to the use of such waters.

Article 11. The Licensee shall, for the conservation and development of fish and wildlife resources, construct, maintain, and operate, or arrange for the construction, maintenance, and operation of such reasonable facilities, and comply with such reasonable modifications of the project structures and operation, as may be ordered by the Commission upon its own motion or upon the recommendation of the Secretary of the Interior or the fish and wildlife agency or agencies of any State in which the project or a part thereof is located, after notice and opportunity for hearing.

Article 12. Whenever the United States shall desire, in connection with the project, to construct fish and wildlife facilities or to improve the existing fish and wildlife facilities at its own expense, the Licensee shall permit the United States or its designated agency to use, free of cost, such of the Licensee's lands and interests in lands, reservoirs, waterways and project works as may be reasonably required to complete such facilities or such improvements thereof. In addition, after notice and opportunity for hearing, the Licensee shall modify the project operation as may be reasonably prescribed by the Commission in order to permit the maintenance and operation of the fish and wildlife facilities constructed or improved by the United States under the provisions of this article. This article shall not be interpreted to place any obligation on the United States to construct or improve fish and wildlife facilities or to

relieve the Licensee of any obligation under this license.

Article 13. So far as is consistent with proper operation of the project, the Licensee shall allow the public free access, to a reasonable extent, to project waters and adjacent project lands owned by the Licensee for the purpose of full public utilization of such lands and waters for navigation and for outdoor recreational purposes, including fishing and hunting: Provided, That the Licensee may reserve from public access such portions of the project waters, adjacent lands, and project facilities as may be necessary for the protection of life, health, and property.

Article 14. In the construction, maintenance, or operation of the project, the Licensee shall be responsible for, and shall take reasonable measures to prevent, soil erosion on lands adjacent to streams or other waters, stream sedimentation, and any form of water or air pollution. The Commission, upon the request or upon its own motion, may order the Licensee to take such measures as the Commission finds to be necessary for these purposes, after notice and opportunity for hearing.

Article 15. The Licensee shall consult with the appropriate State and Federal agencies and, within one year of the date of issuance of this license, shall submit for Commission approval a plan for clearing the reservoir area. Further, the Licensee shall clear and keep clear to an adequate width lands along open conduits and shall dispose of all temporary structures, unused timber, brush, refuse, or other material unnecessary for the purposes of the project which results from the clearing of lands or from the maintenance or alteration of the project works. In addition, all trees along the periphery of project reservoirs which may die during operations of the project shall be removed. Upon approval of the clearing plan all clearing of the lands and disposal of the unnecessary material shall be done with due diligence and to the satisfaction of the authorized representative of the Commission and in accordance with appropriate Federal, State, and local statutes and regulations.

Article 16. Material may be dredged or excavated from, or placed as fill in, project lands and/or waters only in the prosecution of work specifically authorized under the license; in the maintenance of the project; or after obtaining Commission approval, as appropriate. Any such material shall be removed and/or deposited in such manner as to reasonably preserve the environmental values of the project and so as not to interfere with traffic on land or water. Dredging and filling in a navigable water of the United States shall also be done to the satisfaction of the District Engineer, Department of the Army, in charge of the locality.

Article 17. If the Licensee shall cause or suffer essential project property to be removed or destroyed or to become unfit for use, without adequate replacement, or shall abandon or discontinue good faith operation of the project or refuse or neglect to comply with the terms of the license and the lawful orders of the Commission mailed to the record address of the Licensee or its agent, the Commission will deem it to be the intent of the

Licensee to surrender the license. The Commission, after notice and opportunity for hearing, may require the Licensee to remove any or all structures, equipment and power lines within the project boundary and to take any such other action necessary to restore the project waters, lands, and facilities remaining within the project boundary to a condition satisfactory to the United States agency having jurisdiction over its lands or the Commission's authorized representative, as appropriate, or to provide for the continued operation and maintenance of nonpower facilities and fulfill such other obligations under the license as the Commission may prescribe. In addition, the Commission in its discretion, after notice and opportunity for hearing, may also agree to the surrender of the license when the Commission, for the reasons recited herein, deems it to be the intent of the Licensee to surrender the license.

Article 18. The right of the Licensee and of its successors and assigns to use or occupy waters over which the United States has jurisdiction, or lands of the United States under the license, for the purpose of maintaining the project works or otherwise, shall absolutely cease at the end of the license period, unless the Licensee has obtained a new license pursuant to the then existing laws and regulations, or an annual license under the terms and conditions of this license.

Article 19. The terms and conditions expressly set forth in the license shall not be construed as impairing any terms and conditions of the Federal Power Act which are not expressly set forth herein.

APPENDIX A**Water Quality Certificate Conditions for the Crocker Dam Hydroelectric Project
issued by the Massachusetts Department of Environmental Protection on
February 4, 2011.**

1. Massachusetts Department of Environmental Protection (Massachusetts DEP) approves the application of Whitman River Dam, Inc. and certifies that there is reasonable assurance that the Crocker Hydroelectric Project, as described above and subject to the conditions below, can be constructed and operated in compliance with the applicable provisions of §303 of the Federal Act, 33 U.S.C. §1313.
2. This Water Quality Certification shall become a condition of the FERC license issued to the project owner.
3. This certification shall become effective on the date that the license issued for the project by FERC becomes effective.
4. The state and federal resource agencies referred to in this certification include the Massachusetts DEP, the Massachusetts Department of Fisheries and Wildlife (Massachusetts DFW), the U.S. Department of the Interior, Fish and Wildlife Service.
5. The project shall be operated by the project owner in accordance with the conditions contained in this certification and information included in the FERC license application. Any modification made to the FERC application during the licensing process that would have a significant effect on the conclusions or conditions contained in this certification, as determined by Massachusetts DEP, must be submitted to Massachusetts DEP for prior review and approval.
6. The project shall be operated to maintain the existing and designated uses of the Whitman River as outlined in the Standards at 314 CMR 4.00, and to maintain and integrated and diverse biological community within the Whitman River.
7. The project owner shall obtain and comply with all applicable federal, state and local licenses, permits, authorizations, conditions, agreements and orders required for the construction and operation of the project in accordance with the terms of this certification.
8. All activities shall be conducted in compliance with the Massachusetts Wetlands Protection Act, including the Rivers Restoration Act, G.L. Chapter 131, Section 40, and the implementing regulations at 310 CMR 10.00. A water quality certification shall be obtained from Massachusetts DEP prior to initiating any activity that will cause a discharge subject to §404 of the federal Act 33 U.S.C., §1344. The project owner shall comply with all

applicable provisions of the Public Waterfront Act GL c. 91, and the implementing regulation at 310 CMR 9.00.

9. Prior to beginning any construction on the project, the project owner shall submit a plan to monitor and control erosion during construction activities to keep impacted waters free from turbidity in concentrations that are aesthetically objectionable or would impair any designated use(s) of such waters. The project owner shall implement the plan as approved by Massachusetts DEP.

10. All construction, maintenance, and repair activities, including disposal of debris and removal of sediments in impounded areas, shall be conducted in a manner so as not to impair water quality, and pursuant to and in compliance with any required approvals.

11. Massachusetts DEP may request, at any time during which this certification is in effect, that FERC reopen the license to make modifications Massachusetts DEP deems necessary to maintain compliance with the Standards at 314 CMR 4.00, or other appropriate requirements of state law.

12. Massachusetts DEP reserves the right to add and alter the terms and conditions of this certification when authorized by law, and as it deems appropriate to carry out its responsibilities during the life of the project with respect to water quality and the protection of the existing designated uses of the waters of the Commonwealth.

13. The project owner shall operate the project in a run-of-river mode such that inflow to the project equals outflow from the project on an instantaneous basis and fluctuation of the head pond water level are minimized. This operating regime may be temporarily modified by approved maintenance activities, agreement between project owner and appropriate state and/or federal resource agencies, or by extreme hydrologic conditions or emergency electrical system conditions, as these terms are defined below.

14. "Extreme hydrologic conditions" signifies the occurrence of events beyond the project owner's control including without limitation, abnormal precipitation, extreme runoff, flood conditions, ice conditions or other hydrologic conditions which render the operational restrictions and requirements contained within this certification impossible to achieve, or are inconsistent with the safe operation of the project.

15. "Emergency electrical system conditions" signifies operating emergencies beyond the project owner's control which require changes in flow regimes to eliminate such emergencies including without limitation, equipment failure or other abnormal temporary operating condition, generating unit operation or third-party mandated interruptions under power supply emergencies, and orders from local, state or federal law enforcement or public safety authorities.

16. During refilling of the project reservoir after dam maintenance or emergency drawdown, the project owner shall operate the project such that 90% of the inflow to the project is released below the project and the impoundment is refilled on the remaining 10% of inflow.

17. Within three months of completion of turbine installation at the dam, or upon such other schedule established by FERC, the project owner shall, submit a plan for monitoring run-of-river operation including pond level and flow release from the project to Massachusetts DEP for approval. The plan shall include: a description and design of the mechanisms and structures that will be used; a description of periodic maintenance and/or calibration that will be conducted to ensure these mechanisms and structures work properly; a description of the method used to record project operation data for verification of proper operations and minimum flow releases; and a description of the manner in which data will be maintained for inspection by Massachusetts DEP and the state and federal resource agencies. The project owner shall consult with the state and federal resource agencies in developing these plans, shall respond to all agency comments, and shall include agency comment letters when submitting the plans to Massachusetts DEP for approval. The project owner shall provide state and federal resource agencies with at least thirty days to respond to a draft plan before it is submitted to Massachusetts DEP for approval. The project owner shall implement the plan as approved by Massachusetts DEP.

18. Within three months of completion of turbine installation at the dam, the project owner shall submit a plan of operations to insure dissolved oxygen levels in the Whitman River remain above 6 mg/l at all times. Operations shall include at a minimum, monitoring dissolved oxygen and temperature at stations South 1 and South 2 (identified during summer 2010 sampling) upon turbine discharge and during any adjustments necessary to maintain the 6 mg/l standard. Adjustments could include providing continuous spill during the summer months (July-September) or improving aeration at the outlet, if needed. The project owner shall consult with the state and federal resource agencies in developing this plan, shall respond to all agency comments, and shall include agency comment letters when submitting the plans to Massachusetts DEP for approval. The project owner shall provide state and federal resource agencies with at least thirty days to respond to a draft plan before it is submitted to Massachusetts DEP for approval. The project owner shall implement the plan as approved by Massachusetts DEP.

19. Within one year of the effective date of this certification, or upon such other schedule established by FERC, the project owner shall install full-depth, one inch clear trash racks with velocities less than or equal to two feet per second (≤ 2 fps) at the intakes to reduce impingement and entrainment of fish at the project.

20. Massachusetts DEP reserves the right to prescribe upstream and downstream eel passage facilities and operations when determined necessary by the Massachusetts DFW.

21. Massachusetts DEP reserves the right to prescribe upstream and downstream anadromous fish passage facilities and operations when determined necessary by the Massachusetts DFW.
22. The project owner shall maintain a minimum flow in the bypassed reach sufficient to maintain water quality standards at all times.
23. The project owner shall allow any employee, agent, consultant, contractor or authorized representative of Massachusetts DEP or Massachusetts DFW to enter the facilities in order to assess compliance with the terms and conditions of this certification including, but not limited to, entry for the purposes of: (i) investigating, sampling, inspecting, or photocopying documents or other writings, conditions, equipment, practices or property; (ii) interviewing facility personnel and contractors; (iii) making records of field activities; and (iv) observing any activities undertaken at the facilities under any of the provisions of this certification.
24. If any event occurs which delays or will delay the project owner's performance of work beyond a deadline established by or pursuant to this certification, which event was beyond the reasonable control and without the fault of the project owner or any person or entity subject to the project owner's control, and which event could not have been prevented or avoided by the exercise of due care, foresight, or due diligence on the part of the project owner (a "force majeure event"), then the time for performance shall be extended for an appropriate period of time, as determined by Massachusetts DEP in its sole discretion. The project owner shall bear the burden of demonstrating that a force majeure event has occurred or will occur, and that the delay was beyond the reasonable control and without the fault of the project owner. Such an extension of time must be in writing to have effect.
25. Submissions under this certification shall be sent to:

Massachusetts DEP: Massachusetts Department of Environmental Protection
Division of Watershed Management
Central Regional Office
627 Main Street
Worcester, MA 01608
(508) 767-2854; FAX (508) 791-4131

Massachusetts Department of Environmental Protection
Bureau of Resources Protection
Central Regional Office
627 Main Street
Worcester, MA 01608
(508) 767-2728; FAX (508) 839-4035

MADFW: Massachusetts Division of Fisheries and Wildlife
Field Headquarters
Assistant Director of Fisheries
1 Rabbit Hill Road
Westborough, MA 01581
(508) 389-6331; FAX (508) 389-7890

Document Content(s)

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